ABSTRACT OF THE DISCLOSURE

A pipe clamp assembly for joining pipe ends of the same or different diameters in a linear relationship for use in acid waste disposal systems. The clamp assembly comprises a flexible clamping band which surrounds the pipe ends to be joined, an elastomeric, circumferential, thin sealing gasket beneath the clamping band and, when joining pipe ends of differing diameters, an elastomeric, circumferential transition coupling within the sealing gasket, the transition coupling having grooves on the exterior surface to engage sealing beads on the interior surface of the sealing gasket, to form a sealing relationship between the exterior surface of the transition coupling and the interior surface of the sealing gasket, and circumferential sealing beads on the interior surface of the transition coupling, to form a sealing relationship with the exterior surface of the reduced diameter joint or pipe to be sealed, thereby providing a clamp assembly adapted to clamp together pipes or joint ends of different diameters. The sealing surfaces of the sealing gasket and transition coupling are layered with teflon to ease assembly, improve sealing, and increase reliability for use in acid waste disposal systems.